Math 212
Quiz 04

M 29 Aug 2016

Your name: _____

Exercise

(2 pt) In the reading, we encountered the idea that a line in $\mathbf{R}^3$ (and in $\mathbf{R}^n$ more generally) is described geometrically by a point on the line and the direction of the line.

Consider the line in $\mathbf{R}^3$ given algebraically by

$$(x, y, z) = \left(1 - t, \frac{t}{2}, 3t - 3\right),$$

where t can be any real number.

(a) (1 pt) State a point on this line (i.e. specify numerical coordinates).

(b) (1 pt) State a direction vector associated with this line.